

REMARKS

Applicant has carefully reviewed and considered the Final Office Action mailed on March 10, 2006, and the references cited therewith.

Claims 31 and 42 are amended, claims 12, 16, 23, 27-30, and 35 were previously canceled, and no claims are added; as a result, claims 1-11, 13-15, 17-22, 24-26, 31-34, and 36-42 are now pending in this application.

§ 103 Rejection of the Claims

Claims 1, 11, 14-15, 17, 20, 22, 26, 31-33, 37-38, and 41-42 were rejected under 35 USC § 103(a) as being unpatentable over Gandy et al (U.S. Patent No. 5,376,957) in view of Ort (U.S. Patent No. 4,340,893). Applicant traverses the rejection as follows.

With regard to the Grandy reference, the Examiner states:

though Grandy only shows heating lamps 28 and 29 in the figures, there are actually two additional lamps which correspond to lamps 28 and 29, respectively, which are positioned in alignment with lamps 28 and 29 and used to heat the other side of the sheet. One pair of these heaters is used for pre-heating and the other is used for post-heating.

With regard to independent claim 1 of the present application, the Examiner states, "Grandy et al differs from the claimed invention in that it does not disclose:"

the first carriage supports a first portion of a heating element proximal to the printhead that scans the print surface with the printhead;
and

a second portion of the heating element carried by a second carriage across a backing surface of said print media, wherein the second portion of the heating element scans the backing surface of said print media in synchronous alignment to the first portion of the heating element.

as recited in independent claim 1. The Examiner goes on to state that Ort discloses "a heater on a carriage" and concludes, "It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ort into the invention of Grandy et al."

Applicant respectfully submits that it is improper to combine Grandy with Ort in a 103 rejection because "the prior art must suggest the desirability of the claimed invention" and "The level of skill in the art cannot be relied upon to provide the

suggestion to combine references.” (MPEP 2143.01). It appears that a purpose of the Grandy reference is accomplished by having two pairs of stationary heat lamps, with one of each pair positioned on each side of the sheet, and “one pair of these heaters is used for pre-heating and the other is used for post-heating”. Because Grandy accomplishes the purpose of drying the ink in this fashion, it does not “suggest the desirability” of doing so in another manner and Applicant’s “level of skill in the art cannot be relied upon to provide the suggestion”.

In addition, “If the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” (MPEP 2143.01). Applicant respectfully submits that having a first portion of a heating element proximal to the printhead and a second portion of a heater that scans the backing surface of the print media in synchronous alignment to the first portion of the heating element would change the principle of operation of the prior art being modified because Grandy accomplishes its purpose by pre-heating the sheet with one pair of stationary lamps and post-heating the sheet with another pair. That is, the present disclosure applies heat energy to the vicinity of the print zone, whereas the proposed modification of Grandy would change its principle of operation, which appears to be accomplished by applying heat energy upstream and downstream from the print zone.

Ort appears to accomplish its purpose using only “a heater on a carriage”, as stated by the Examiner, on one side of the print medium. The reference does not “suggest the desirability” of:

the first carriage supports a first portion of a heating element proximal to the printhead that scans the print surface with the printhead;
and

a second portion of the heating element carried by a second carriage across a backing surface of said print media, wherein the second portion of the heating element scans the backing surface of said print media in synchronous alignment to the first portion of the heating element.

As stated in MPEP 2143.01, “The mere fact that references can [sic] be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” As also stated in the just-

cited MPEP section, “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings.” Applicant respectfully submits that combining Ort with Grady in a 103 obviousness rejection of independent claim 1 would constitute “improper hindsight” that relies upon level of skill in the art to provide the suggestion to combine references because synchronous alignment of a first portion of a heating element proximal to the printhead with a second portion of a heating element each scanning opposing surfaces of a print medium does not appear in the Grady and/or Ort references.

Grady and Ort do not describe, teach, or suggest, as recited in Applicant’s independent claim 14:

a first carriage opposing a print surface of print media in the printzone, said first carriage supporting an inkjet printhead and a first heating element portion that scan across the print surface; and
a second carriage opposing a backing surface of print media in the printzone, said second carriage holding a second heater element portion, said first and second heater element portions forming a heater element that synchronously scans with said first and second heater element portions in alignment.

Grady and Ort do not describe, teach, or suggest, as recited in Applicant’s independent claim 22:

projecting from a first heating element on said first carriage
radiant energy applied as heat energy to said media; and
synchronously scanning a second carriage across a backing surface of media relative to said first carriage, said second carriage holding a second heater element in cooperative alignment with said first heater element to apply said heat energy to said media, said media interposed therebetween.

Grady and Ort do not describe, teach, or suggest, as recited in Applicant’s independent claim 31, as amended:

receiving by said ink in said print swath a heat energy through a first and second reciprocation of a cooperative first and second heating elements moving synchronously in alignment on opposite sides of said print media interposed therebetween.

Grandy and Ort do not describe, teach, or suggest, as recited in Applicant's independent claim 38:

means for applying heat energy to said media and supported by said carriage means, said means for applying heat energy including cooperative first and second heater elements, said first heater element being positioned opposing a print surface of said media and said second heater element opposing a backing surface of said media and scanning in synchronous alignment with said first heater element.

In addition, Grady and Ort do not describe, teach, or suggest, as recited in Applicant's independent claim 42, as amended:

whereby print imaging produced by said ink droplets receives said heat energy through a first and second reciprocation of a first and second portion of said heating element moving synchronously in alignment on opposite sides of said media.

As such, Applicant respectfully submits that each and every element and limitation of independent claims 1, 14, 22, 31, 38, and 42, as amended, is not described, taught, or suggested in the Grandy and Ort references, either individually or in combination, and that independent claims 1, 14, 22, 31, 38, and 42 are in condition for allowance. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of independent claims 1, 14, 22, 31, 38, and 42, as amended, as well as those claims that depend therefrom.

Claims 2, 5, 8-10, 13, 19, 24-25, 34, 36 and 39-40 were rejected under 35 USC § 103(a) as being unpatentable over Gandy et al (U.S. Patent No. 5,376,957) in view of Ort (U.S. Patent No. 4,340,893) as applied to claims 1, 11, 14-15, 17, 20, 22, 26, 31-33, 37-38, and 41-42 above, and further in view of Meyers et al (U.S. Patent No. 6,463,674). Applicant traverses the rejection as follows.

Claims 2, 5, 8-10, 13, 19, 24, 25, 34, 36, 39, and 40 depend from independent claims 1, 14, 22, 31, and 38. Applicant respectfully submits that independent claims 1, 14, 22, 31, and 38, as amended, are in condition for allowance. From Applicant's review of the Meyers reference, the reference does not cure the deficiencies of the Grandy and Ort references. That is, Grandy, Ort, and Meyers, either individually or in

combination, do not describe, teach, or suggest the underlined elements provided above in the recited portions of Applicant's independent claims 1, 14, 22, 31, and 38.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 2, 5, 8-10, 13, 19, 24, 25, 34, 36, 39, and 40.

Claims 3 and 4 were rejected under 35 USC § 103(a) as being unpatentable over Gandy et al (U.S. Patent No. 5,376,957) in view of Ort (U.S. Patent No. 4,340,893) and Meyers et al (U.S. Patent No. 6,463,674) as applied to claim 2, and further in view of Carreira et al (U.S. Patent No. 5,220,346). Applicant traverses the rejection as follows.

Claims 3 and 4 depend from independent claim 1. Applicant respectfully submits that independent claim 1 is in condition for allowance. From Applicant's review of the Carreira reference, the reference does not cure the deficiencies of the Grandy, Ort, and Meyers references. That is, Grandy, Ort, Meyers, and Carreira, either individually or in combination, do not describe, teach, or suggest, as recited in independent claim 1:

a first carriage which scans an inkjet printhead across a print surface of the said print media in the printzone, wherein the first carriage supports a first portion of a heating element proximal to the printhead that scans the print surface with the printhead; and

a second portion of the heating element carried by a second carriage across a backing surface of said print media, wherein the second portion of the heating element scans the backing surface of said print media in synchronous alignment to the first portion of the heating element.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 3 and 4.

Claims 18 and 21 were rejected under 35 USC § 103(a) as being unpatentable over Gandy et al (U.S. Patent No. 5,376,957) in view of Ort (U.S. Patent No. 4,340,893) as applied to claim 14, and further in view of Carreira et al (U.S. Patent No. 5,220,346). Applicant traverses the rejection as follows.

Claims 18 and 21 depend from independent claim 14. Applicant respectfully submits that independent claim 14 is in condition for allowance. From Applicant's

review of the Carreira reference, the reference does not cure the deficiencies of the Grandy and Ort references. That is, Grandy, Ort, and Carreira, either individually or in combination, do not describe, teach, or suggest, as recited in independent claim 14:

a first carriage opposing a print surface of print media in the printzone, said first carriage supporting an inkjet printhead and a first heating element portion that scan across the print surface; and
a second carriage opposing a backing surface of print media in the printzone, said second carriage holding a second heater element portion, said first and second heater element portions forming a heater element that synchronously scans with said first and second heater element portions in alignment.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 18 and 21.

Claims 6 and 7 were rejected under 35 USC § 103(a) as being unpatentable over Gandy et al (U.S. Patent No. 5,376,957) in view of Ort (U.S. Patent No. 4,340,893) and Meyers et al (U.S. Patent No. 6,463,674) as applied to claim 5, and further in view of Woo et al (U.S. Patent No. 5,645,904). Applicant traverses the rejection as follows.

Claims 6 and 7 depend from independent claim 1. Applicant respectfully submits that independent claim 1 is in condition for allowance. From Applicant's review of the Woo reference, the reference does not cure the deficiencies of the Grandy, Ort, and Meyers references. That is, Grandy, Ort, Meyers, and Woo, either individually or in combination, do not describe, teach, or suggest, as recited in independent claim 1:

a first carriage which scans an inkjet printhead across a print surface of the said print media in the printzone, wherein the first carriage supports a first portion of a heating element proximal to the printhead that scans the print surface with the printhead; and
a second portion of the heating element carried by a second carriage across a backing surface of said print media, wherein the second portion of the heating element scans the backing surface of said print media in synchronous alignment to the first portion of the heating element.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 6 and 7.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney Gregg W. Wisdom at (360) 212-8052.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

CERTIFICATE UNDER 37 CFR §1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS AF Commissioner for Patents, P.O. BOX 1450 Alexandria, VA 22313-1450, on this 11th day of April, 2006.

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Date: 4/11/2006